

WHAT IS CLAIMED IS:

1. A method for curriculum planning using a curriculum planning tool, said method comprising:

selecting a grade level, an academic discipline, and a course within the academic discipline;

entering local objectives to be met by the selected course;

aligning the local objectives with one or more standards;

mapping the selections, local objectives, and standards into one or more key concepts that support interdisciplinary connections and promote conceptual development;

developing instructional activities for the selected course that teach key concepts, processes, and critical content; and

assessing the curriculum against the standards using criterion-reference assessments that are aligned with a learning process complexity and based on instructional activities.

2. A method according to Claim 1 further comprising:

selecting discipline specific processes that are organized by learning process complexity; and

selecting a critical content and vocabulary for the discipline specific processes as identified in a scope and sequence for the discipline aligned with the national standards.

3. A method according to Claim 1 wherein mapping the selections, local objectives, and standards into one or more key concepts comprises supporting a conceptual framework that incorporates a hierarchy of conceptual development for the conceptual process.

4. A method according to Claim 1 further comprising formatting interdisciplinary connections through integration of shared discipline concepts.

5. A method according to Claim 1 further comprising developing a framework for sequential strategies based on learning process complexity.

6. A method according to Claim 1 wherein developing instructional activities for the curriculum comprises developing and aligning instructional activities for the curriculum that teach a structural process of conceptual development and the relationships between concepts and factual knowledge, a sequential complexity of the learning process and its relationship to skill-based objectives, and the development of both discipline specific concepts and common discipline-shared concepts for interdisciplinary connections and integration of knowledge.

7. A method according to Claim 1 wherein the standards include one or more of national standards, state standards, local standards, district standards, and school standards.

8. A method according to Claim 1 further comprising providing an assessment for a student based on a result of the instructional activity.

9. A method according to Claim 1 further comprising aligning the assessment with the key concepts and state discipline-specific grade-level expectations.

10. A method according to Claim 1 wherein assessing the curriculum against the standards comprises:

selecting a standard; and

preparing a report illustrating which of the instructional activities apply to the selected standard.

11. A method according to Claim 10 wherein the selected standard comprises one or more of a content standard and a process standard.

12. A method according to Claim 10 further comprising including an instructional strategy and assessment type in the report for each instructional activity.

13. A method according to Claim 1 further comprising preparing at least one of a career path report, a technology report, a research report, an ethnic equity awareness report, a racial equity awareness report, and a gender equity awareness report illustrating which of the instructional activities apply to the prepared reports.

14. A method according to Claim 1 wherein selecting a course further comprises selecting a subtopic within the course.

15. A method according to Claim 1 wherein mapping the selections, local objectives, and standards into one or more concepts comprises:

identifying a topic; and

viewing the topic through a conceptual lens connecting components in one or more disciplines.

16. A computer for curriculum assessment, said computer programmed to:

accept input data relating to grade level selection, academic discipline selection, course selection within the academic discipline, and local objectives to be met by the selected course;

align the local objectives with discipline specific grade level objectives and one or more standards;

map critical content and process level input data with one or more concepts to be taught and the standards;

accept input data relating to instructional activities for teaching the concepts; and

assess the curriculum against the standards based on the instructional activities.

17. A computer according to Claim 16 wherein to assess the curriculum said computer is programmed to accept input data relating to selection of a standard and generate a report illustrating which of the instructional activities apply to the selected standard.

18. A computer according to Claim 17 wherein the selected standard comprises one or more of a content standard and a process standard.

19. A computer according to Claim 16 wherein the report includes an instructional strategy and assessment type for each instructional activity.

20. A computer according to Claim 16 wherein the report includes the academic discipline, grade level, and course for each instructional activity.

21. A computer according to Claim 16 wherein to assess the curriculum said computer is programmed to generate at least one of a career path report, a technology report, a research report, an ethnic equity awareness report, a racial equity awareness report, and a gender equity awareness report illustrating which of the instructional activities apply to the prepared reports.

22. A method for mapping a curriculum according to concepts utilizing a curriculum mapping tool, said method comprising:

choosing a grade level, a topic, and a concept;

selecting an academic discipline and a course within the discipline to be used for teaching the concept;

selecting a discipline-specific subtopic;

choosing at least one of a discipline concept and a discipline process;

generating at least one of a concept map of information and a process map action, based upon said choice of discipline process and discipline concept; and

identifying instructional activities for the course which align with the concept.

23. A method according to Claim 22 further comprising reporting which instructional activities are applicable to a selected standard.

21. A method according to Claim 23 further comprising making changes to the curriculum based on the instructional activities which align with a selected concept.

22. A method according to Claim 22 further comprising reporting which instructional activities are applicable to one or more of a career path, a technology, research, ethnic equity awareness, racial equity awareness, and gender equity awareness.